

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants: A. HEIKKINEN, et al  
Serial No.: Not yet assigned  
Filed: December 21, 2000  
For: METHOD AND APPARATUS FOR SPEECH CODING WITH  
VOICED/UNVOICED DETERMINATION  
Group: Not yet assigned  
Examiner: Not yet assigned

PRELIMINARY AMENDMENT

Assistant Commissioner for Patents  
Washington, D.C. 20231

December 21, 2000

Sir:

Prior to examination, please amend the above-identified application as follows.

IN THE SPECIFICATION

Please amend the specification as follows:

Page 11, line 4, delete "What is claimed is".

IN THE CLAIMS

Page 12, line 1, insert -What is claimed is:--.

Please amend claims 4, 5, 7, 8 and 11 as follows:

4. (Amended) A method of [any preceding] claim 1,  
wherein said step of making a decision is based on whether the  
values relating to the voicing of substantially half of the

sub-segments of the speech signal segment are on the one side of the threshold.

5. (Amended) A method of [any preceding] claim 1, wherein said value related to voicing of respective speech signal sub-segments comprises an autocorrelation value.

7. (Amended) A method of [any preceding] claim 1, wherein the determining the voicing of a speech signal segment comprises a voiced/unvoiced decision.

8. (Amended) A device for determining the voicing of a speech signal segment, comprising:

means [(106)] for dividing a speech signal segment into sub-segments[,];

means [(110)] for determining a value relating to the voicing of respective speech signal sub-segments[,];

means [(112)] for comparing said values with a predetermined threshold; and

means [(112)] for making a decision on the voicing of the speech segment based on the number of the values falling on the one side of the threshold.

11. (Amended) A device of [any of claims] claim 8 [to 10], wherein said means for making a decision comprises:

means for determining whether the values relating to the voicing of substantially half of the sub-segments the speech signal segment are on the one side of the threshold.

Please add new claims 13 and 14 as follows:

-- 13. A device of claim 9, wherein said means for making a decision comprises:

means for determining whether the values relating to the voicing of substantially half of the sub-segments the speech signal segment are on the one side of the threshold.

14. A device of claim 10, wherein said means for making a decision comprises:

means for determining whether the values relating to the voicing of substantially half of the sub-segments the speech signal segment are on the one side of the threshold.

#### **IN THE ABSTRACT**

Line 19, delete "Figure 1".

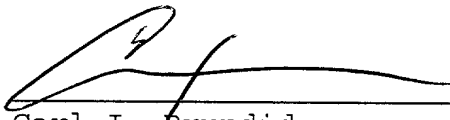
REMARKS

Entry of the above amendments prior to examination is respectfully requested.

Please charge any shortage in fees due in connection with the filing of this paper, or credit any overpayment of fees, to the deposit account of Antonelli, Terry, Stout & Kraus, LLP, Deposit Account No. 01-2135 (367.39397X00).

Respectfully submitted,

ANTONELLI, TERRY, STOUT & KRAUS, LLP

  
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